

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problems Mailbox.**

THIS PAGE BLANK (USPTO)

# (12) UK Patent Application (19) GB (11) 2 274 004 (13) A

(43) Date of A Publication 06.07.1994

(21) Application No 9227119.6

(22) Date of Filing 30.12.1992

(71) Applicant(s)

Nigel Coole  
20 West Road, Barton Stacey, WINCHESTER, Hants,  
SO21 3SB, United Kingdom

(72) Inventor(s)

Nigel Coole

(74) Agent and/or Address for Service

Nigel Coole  
20 West Road, Barton Stacey, WINCHESTER, Hants,  
SO21 3SB, United Kingdom

(51) INT CL<sup>5</sup>  
G04B 19/08

(52) UK CL (Edition M )  
G3T TA4B1 TA4B2

(56) Documents Cited  
FR 002622315 A US 4541726 A US 4175378 A  
Practical electronics April 1992 p36 Practical  
electronics May 1992 p4

(58) Field of Search  
UK CL (Edition L ) G3T TA4B1 TA4B2 TA4B3 TA4B5  
INT CL<sup>5</sup> G04B 19/08  
Online databases:- WPI

(54) A timepiece.

(57) A decimal timepiece displays decimal time by dividing a day into ten equal portions of time each being further sub-divided into one hundred equal portions of time, each of which is further sub-divided into ten equal portions of time. The display may be analogue or digital.

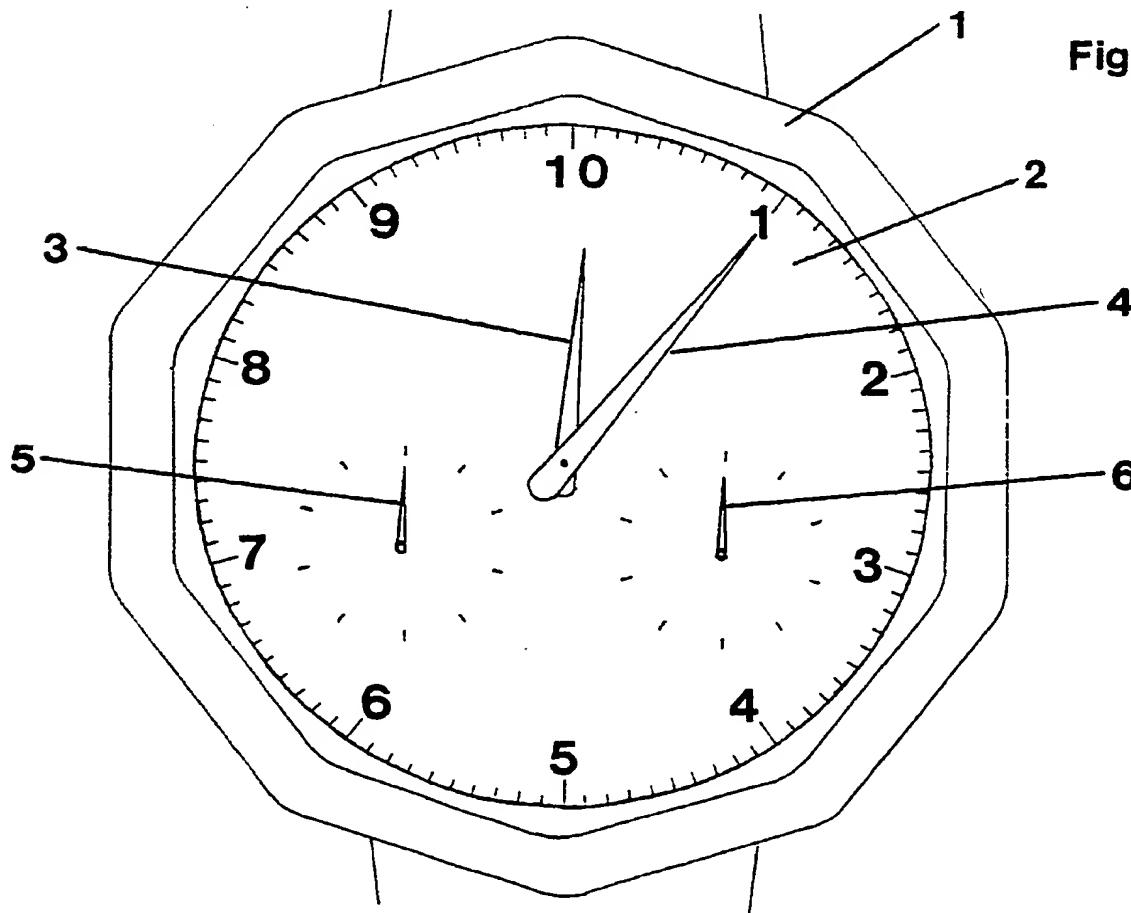


Figure 1

GB 2 274 004 A

Figure 1

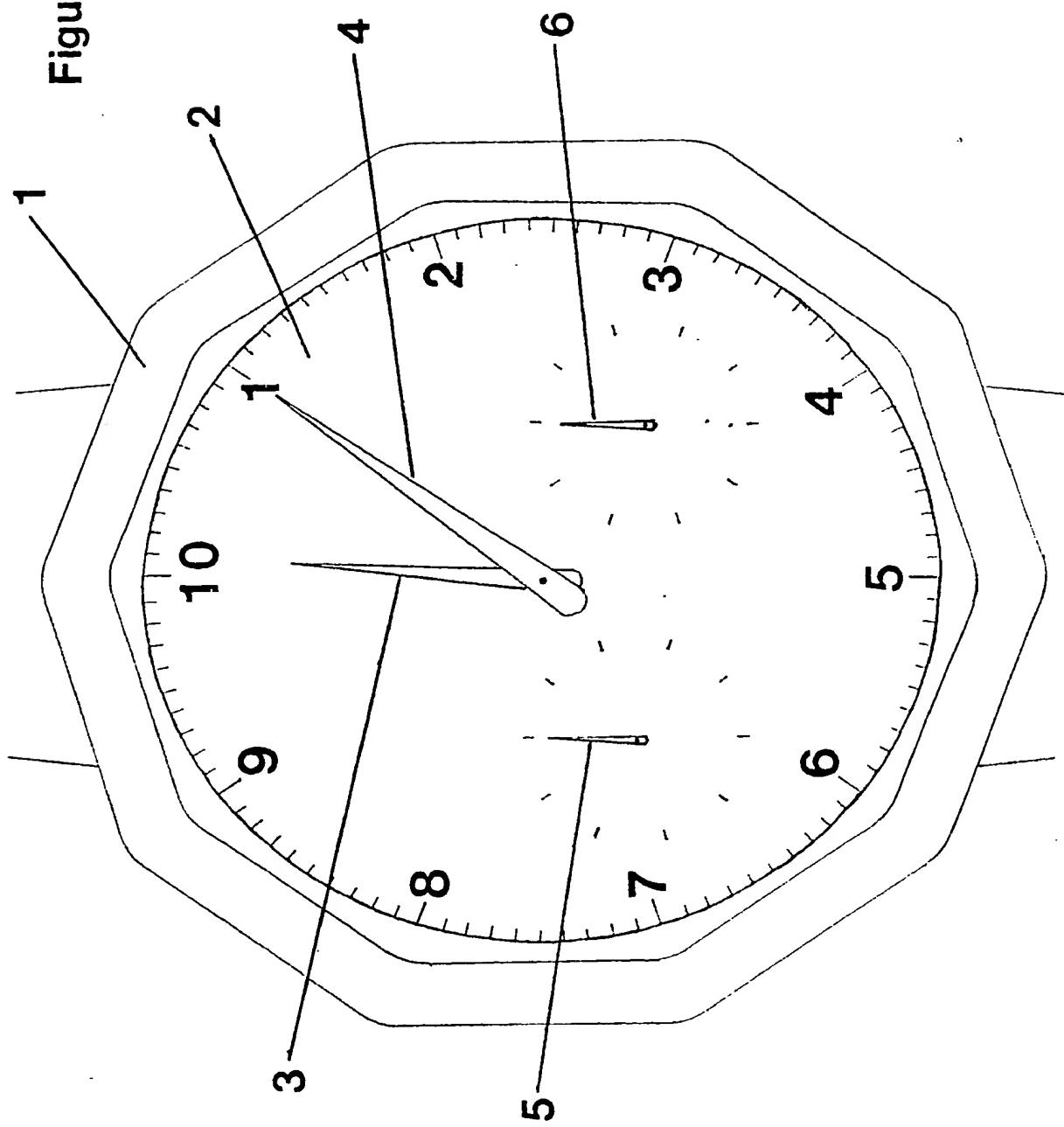


Figure 2

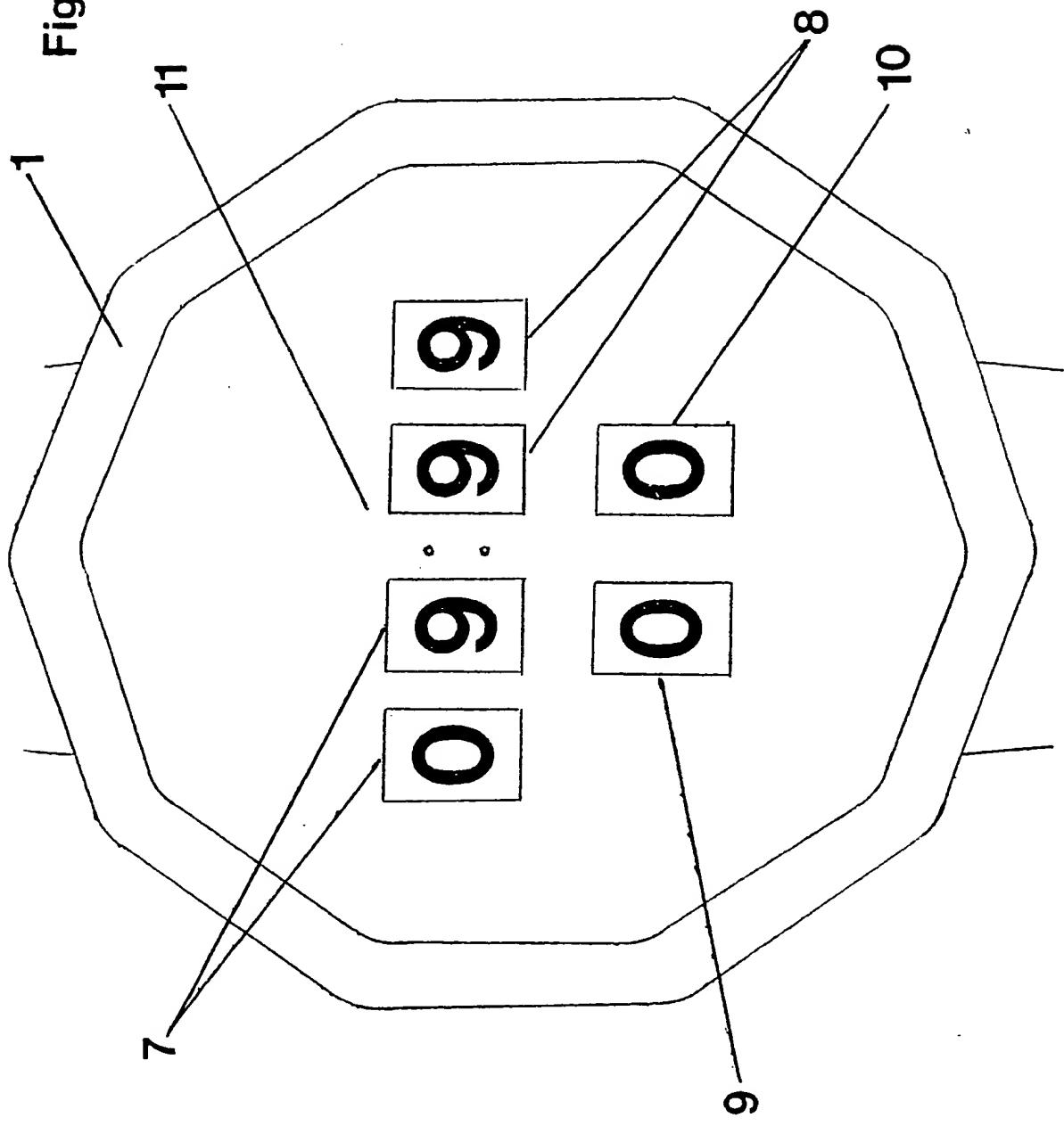
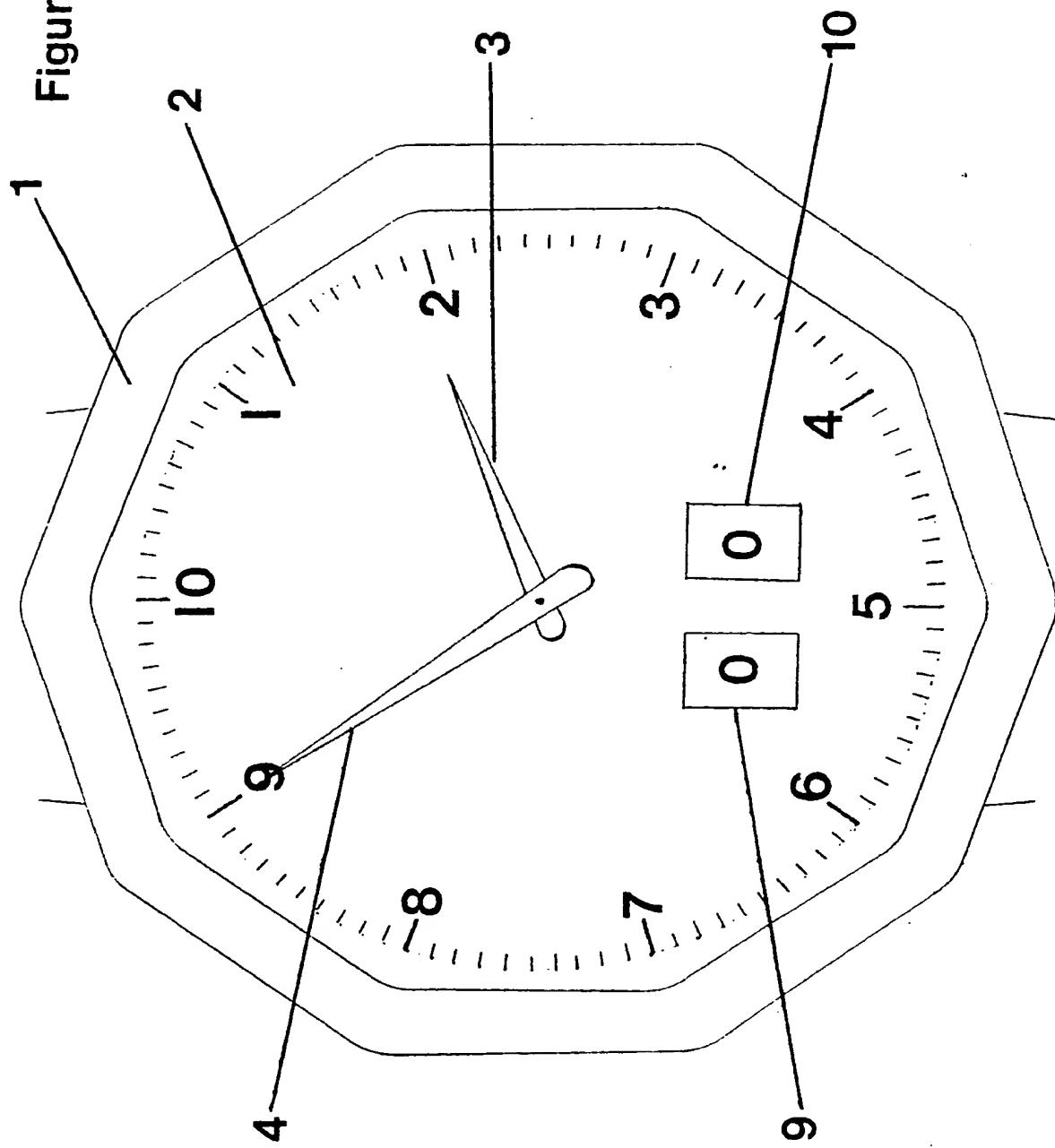


Figure 3



## TIMEPIECE

This invention relates to a timepiece.

Learning to tell the time causes many people, both adult and child, considerable difficulty. The current process of using the 24 hour clock is perhaps the prime cause of the difficulty. Having learnt to tell the time there can be further difficulty due to the numerous methods of expressing the time, ie:

Thirteen forty five hours.  
One forty five in the afternoon.  
A quarter to two in the afternoon.  
One forty five PM.

With increasing decimalisation, and the benefits that that has brought, it is illogical that we continue to use the current 24 hour clock.

According to the present invention there is a timepiece which calculates and displays decimal time by dividing each day into periods of time using a decimal system.

The timepiece consists of an electronic, mechanical, or electro-mechanical instrument for calculating time using a decimal system, time is displayed by means of an analogue, digital, or analogue-digital display. Decimal time is calculated by dividing a day, currently 24 hrs, into ten equal portions of time called 'DECONNNS'. Each deconn is further sub-divided into one hundred equal portions of time called 'CENTONNS'. Each Centonn is further sub-divided into ten equal portions of time called 'MILONNS'. Milonns can be further sub-divided ad finitum, dependent on the degree of accuracy required.

1 DAY	= 1 ONN
1 ONN	= 10 DECONNNS
1 DECONN	= 100 CENTONNS
1 DECONN	= 1000 MILONNS
1 CENTONN	= 10 MILONNS
1 DAY	= 10 DECONNNS
1 DAY	= 1000 CENTONNS
1 DAY	= 10000 MILONNS
1 ONN	= 1 DAY
10 DECONNNS	= 24 HOURS
10 DECONNNS	= 1440 MINUTES
10 DECONNNS	= 86400 SECONDS
1 DECONN	= 2 HOURS 24 MINUTES
1 DECONN	= 144 MINUTES
1 DECONN	= 8640 SECONDS
1 CENTONN	= 1 MINUTE 26.4 SECONDS
1 CENTONN	= 86.4 SECONDS
1 MILONN	= 8.64 SECONDS

A 'DAY' is a calendar day, of 24 hours duration reckoned from one midnight to the next.

It is possible to alter the time display by means of either mechanical winders or electronic function buttons, these are not illustrated in the accompanying drawings.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawings in which:-

Figure 1 shows a plan view of an example of a decimal timepiece with an analogue time display;

Figure 2 shows a plan view of an example of a decimal timepiece with a digital time display; and

Figure 3 shows a plan view of an example of a decimal timepiece with an analogue-digital time display.

1 Referring to figure 1 the analogue decimal timepiece comprises an outer case 1, an analogue display 2, the external perimeter of which is divided into ten equal segments and numbered consecutively 1 to 10, a small 'hand' to indicate deconns 3, a large 'hand' to indicate centonns 4, a 'hand' to indicate the number of milonns between each centonn 5, and one further 'hand' to indicate the number of tenths of milonns 6. All 'hands' rotate in a clockwise direction.

2 Referring to figure 2 the digital decimal timepiece comprises an outer case 1, a digital display 11, which is capable of displaying the whole number of deconns (2 digits) 7, whole number of centonns (2 digits) 8, whole numbers of milonns (1 digit) 9, and tenths of milonns (1 digit) 10.

3 Referring to figure 3 the analogue-digital decimal timepiece comprises an outer case 1, an analogue display 2, the external perimeter of which is divided into ten equal segments and numbered consecutively 1 to 10, a small 'hand' to indicate deconns 3, a large 'hand' to indicate centonns 4, and a digital display which is capable of displaying milonns (1 digit) 9, and tenths of milonns (1 digit) 10. All 'hands' rotate in a clockwise direction.

## CLAIMS

- 1 A timepiece which calculates and displays decimal time by dividing each day into periods of time using a decimal system.
- 2 A timepiece as claimed in Claim 1 wherein decimal time is calculated by means of a mechanical instrument.
- 3 A timepiece as claimed in Claim 1 wherein decimal time is calculated by means of an electronic instrument.
- 4 A timepiece as claimed in any preceding claim wherein decimal time is calculated by means of an electro-mechanical instrument.
- 5 A timepiece as claimed in any preceding claim wherein decimal time is displayed by means of an analogue display.
- 6 A timepiece as claimed in any preceding claim wherein decimal time is displayed by means of a digital display.
- 7 A timepiece as claimed in any preceding claim wherein decimal time is displayed by means of both analogue and digital displays.
- 8 A timepiece as claimed in any preceding claim wherein decimal time is indicated by one or more analogue pointers (hands).
- 9 A timepiece as claimed in any preceding claim wherein decimal time is indicated by a digital display of one or more digits.
- 10 A timepiece as claimed in any preceding claim wherein a day (A 'DAY' being a calendar day, of 24 hours duration reckoned from one midnight to the next) is divided into portions of time using a decimal system.
- 11 A timepiece as claimed in any preceding claim wherein a day is divided into ten equal portions of time using a decimal system, each of the ten equal portions of time are further sub-divided into one hundred equal portions of time, which in turn are further sub-divided into ten further equal portions of time ad finitum.
- 12 A method of timing an operation which method comprises determining an instant of time or a time interval using a decimal system and displaying the time or time interval by use of primary units each representing one tenth of a twenty four hour period and secondary time units each representing one hundredth of a primary time unit.

**Relevant Technical fields**

(i) UK CI (Edition 1 ) G3T TA4B1 B2 B3 B5

(ii) Int CI (Edition 5 ) G04B 19/08

**Search Examiner**

D WHITFIELD

**Databases (see over)**

(i) UK Patent Office

(ii) ONLINE DATABASES: WPI

**Date of Search**

27 JANUARY 1993

**Documents considered relevant following a search in respect of claims**

<b>Category (see over)</b>	<b>Identity of document and relevant passages</b>		<b>Relevant to claim(s)</b>
X	US 4541726	(RACHOFSKY) whole document	1-12
X	US 4175378	(SHELTON) whole document	1-12
X	FR 2622315	(PERPES) whole document	1-12
X	Practical Electronics April 1992 page 36		1-12
X	Practical Electronics May 1992 page 4		1-12

Category	Identity of document and relevant passages	Relevance to claims.

### Categories of documents

- C:** Document indicating lack of novelty or of inventive step.
- E:** Document indicating lack of inventive step if combined with one or more other documents of the same category.
- I:** Document indicating technological background and/or state of the art.
- P:** Document published on or after the declared priority date but before the filing date of the present application.
- E:** Patent document published on or after, but with priority date earlier than, the filing date of the present application.
- &:** Member of the same patent family, corresponding document.

**Databases:** The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).